

SECTION 2.1

Are the following functions or not? Explain why or why not.

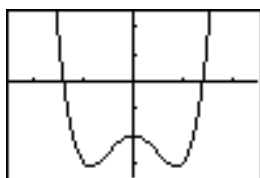
1.

x	w
1	7
3	7
4	-1
8	3
-3	-1

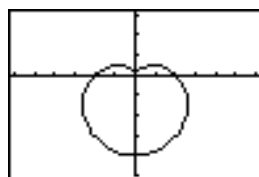
2.

T	h
-3	5
-2	6
-1	7
-2	8
-3	9

3.



4.



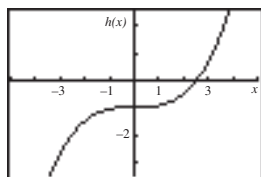
- Is temperature in Celsius a function of temperature in Fahrenheit?
- Is the height of a falling object a function of time?
- Is salary a function of the number of years of schooling?
- Is height a function of a person's age?
- Given $F(x) = 5x^3 - 8x + 1$, find $F(-2)$.
- Given $g(x) = 2x^2 - 4x - 7$, find $g(3)$.
- Given the table shown, evaluate $g(8)$.

t	$g(t)$
-1	-11
3	-7
4	-1
8	5
10	1

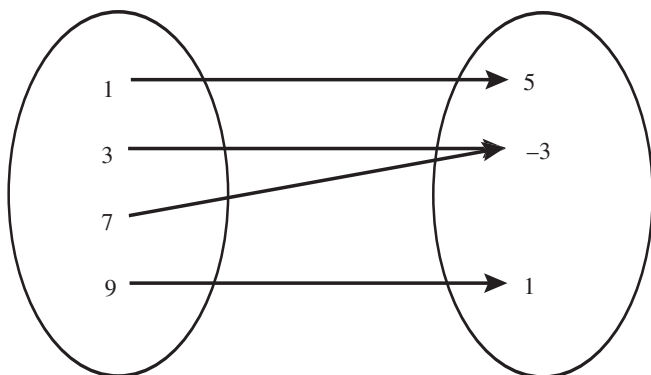
- Given the table shown, evaluate $h(-2)$.

x	$h(x)$
-3	6
-2	4
-1	2
0	0
1	-2

13. Given the graph shown, evaluate $h(4)$ and $h(0)$.



14. Given the diagram shown, evaluate $f(3)$.



15. An ant's speed can be affected by the temperature. The table shows several observations where S is the speed in centimeters per second of the ant and t is the temperature in degrees Celsius.

Temperature, t	4	16	22	28
Speed, $S(t)$	0	2	3	4

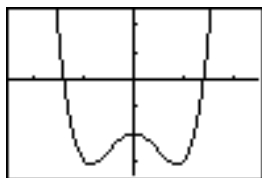
Find $S(16)$ and interpret its meaning in the context of the problem.

16. The height of an object (in feet) thrown into the air after t seconds is given by $h(t) = -16t^2 + 40t + 3$. Find $h(1)$ and interpret its meaning in the context of the problem.

17. Find the domain and range of problem 12.

18. Find the domain and range of problem 14.

19. Find the domain and range of the graph shown.



20. A. Use the graph of $f(x) = \frac{3}{5}x - 1$ to estimate $f(4)$.

B. Find $f(4)$ symbolically.